AUDIONET

SAM G2

Stereo Amplifier

User's Manual

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1 Preface

The Audionet Team congratulates you on your purchase of this unit.

Audionet components are no marketing products, they are authentic. Conceived and developed with scientific inspiration, professional engineering expertise and a passion for achieving the perfect sound. They are unique creations designed to inspire musical enjoyment and have an excellent reputation amongst all connoisseurs throughout the world. Each and every one of our precision-manufactured devices are individually crafted at our Bochum works by our experienced and passionate workforce.

But before you start listening to your new Audionet SAM G2, please read this manual carefully so you are able to use and enjoy all functions of this unit without drawback on music quality.

1.1 Included

Included you will find the following items:

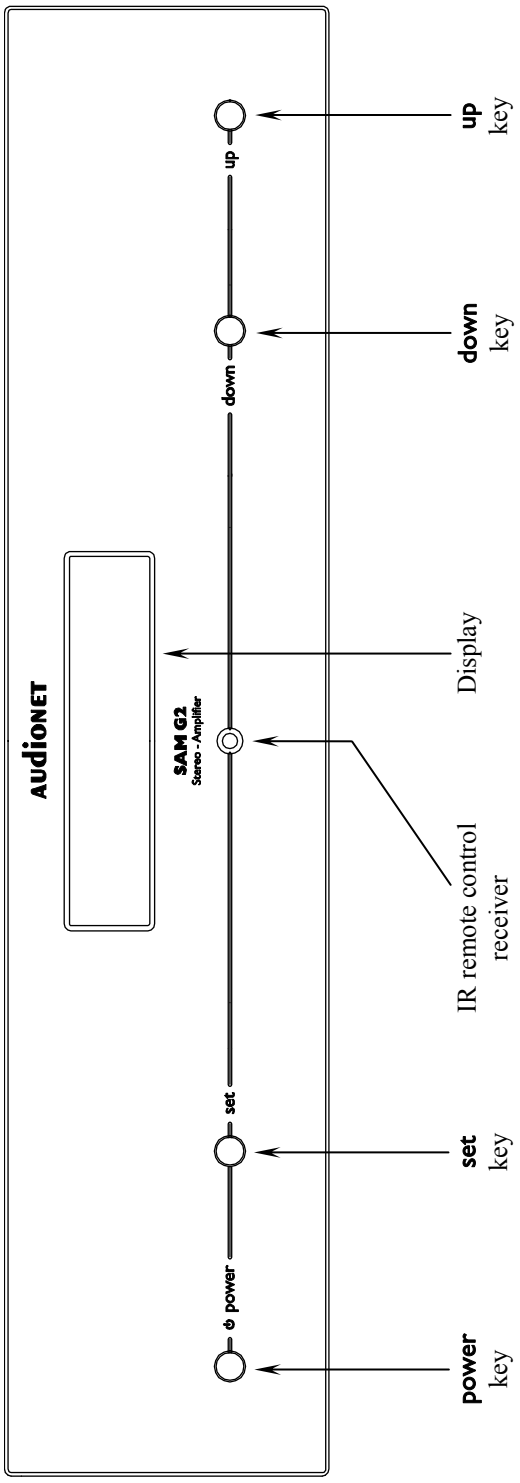
- the stereo integrated amplifier SAM G2
- the user's manual (that you are currently reading)
- one standard mains cord

1.2 Transport

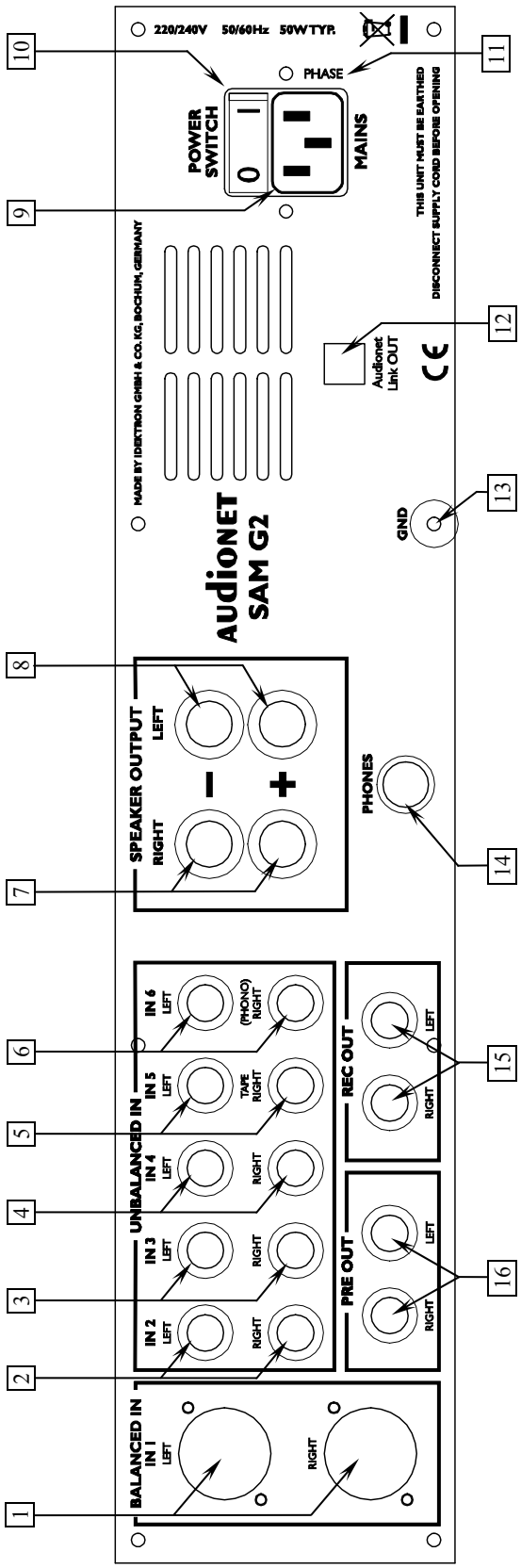
Important

- Please transport the SAM G2 only in the included package.
- Always use the plastic bag to prevent scratches on the casing.
- Please allow the SAM G2 to adapt to the climatic conditions in your listening room before you switch on the unit for the first time after transport.

2 Overview front panel



3 Overview back panel



1 Balanced input (XLR) no. 1, left/right

2 RCA input no. 2, left/right

3 RCA inpt no. 3, left/right

4 RCA input no. 4, left/riht

5 RCA input no. 5, left/right

6 RCA input no. 6, left/right

7 Speaker terminal, right channel

8 Speaker terminal, left channel

9 Mains input

10 Mains switch

11 Marking mains phase

12 Audionet Link output **OUT**

13 Earth connector for turntable

14 Headphones socket

15 Recording output **REC OUT**, left/right

16 Pre amplifer Output, **PRE OUT** left/right

4 Installation and power supply

Important

- **During connecting and removing of sources or amplifiers to the SAM G2 all units of your audio system have to be switched off to prevent damage of the SAM G2 or any of the other connected units.**
- **Please make sure that all cables are in absolute best conditions! Broken shields or short-cut cables could damage the SAM G2 and/or any other connected unit.**

4.1 Placement

Important

- It is recommended to place the SAM G2 into a high quality rack or onto a stable table.
- Do not expose the unit to direct sunlight.
- Do not cover the ventilation slots.
- Do not place the SAM G2 in close range to heat sources like radiators.
- Do not place the SAM G2 on top of other units, especially not on top of power amplifiers, pre amplifiers or similar that produce heat. Both units could suffer damage from thermal overload.
- Do not use the unit in places where it is exposed to vibrations.
- Do not place the unit close to loudspeakers or into the corner of a room where it is exposed to high levels of sonic energy, which might reduce the sound quality of the unit.

4.2 Mains connection

The mains input 9* is on the back panel of the SAM G2. To connect the unit to mains use the included mains cord. If you prefer to use a different power cord make sure that it meets the specifications for your home country.

Important

- **The electrical specifications of your home country must meet the electrical specifications printed onto the back panel.**

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* see numbers in section '*Overview back panel*' on page 8.

- The SAM G2 is a Class I unit and must be earthed. Please ensure a stable earth connection. Phase ('hot' pin) is marked on the back panel ('**phase**') 11.
- If you connect the mains cord please make sure that mains switch 10 at the back panel is switched off.
- Never pull the mains plug while the SAM G2 is switched on! Before you pull the mains cord off its socket 9 at the back panel, power down the unit to stand-by mode and switch off the unit using mains switch 10.

Only in cases of extended absence – like vacations – or if massive trouble on the mains power is to be expected you should switch off the SAM G2 from the mains using the mains switch 10. To disconnect the unit completely from mains pull the mains plug.

Tip

- The use of high quality mains cords (e.g. Audionet P10) could improve sound quality. Ask your local dealer for more information.

4.3 Orientation of mains plug

The correct polarization of mains is important for reasons of audio clarity and stability. Please connect the mains cord so that the hot pin of the wall outlet is connected to the pin of the mains input 11 marked '**PHASE**' 9. Your Audionet SAM G2 is able to detect a wrong polarization of the mains plug during start-up. If the message

```
►       Attention:      ◄
► Mains phase incorrect ◄
```

appears in the display, switch off the unit and flip the mains plug in the wall outlet (see section '*Mains phase detection*' on page 15).

5 Inputs and outputs

Important

- **During connecting and removing of sources or amplifiers to the SAM G2 all units of your audio system have to be switched off to prevent damage of the SAM G2 or any of the other connected units.**
- **Please make sure that all cables are in absolute best conditions! Broken shields or short-cut cables could damage the SAM G2 and/or any other connected unit.**

5.1 Inputs

The SAM G2 is equipped with five RCA inputs 2 to 6 and one balanced (XLR) input 1 for connecting signal sources at line level.

Please connect the left and right input of the same number printed on the back panel of the SAM G2 to the corresponding output of the source you would like to connect to the SAM G2.

5.2 Speaker terminals

Connect your speakers to the gold plated terminals 7 and 8 on the back panel of the SAM G2. You can use banana plugs or spades as well as simple cable ends. Look out for the correct connection of your speaker cables. Usually, the terminals of your speakers are marked '+' and '-'. The SAM G2 uses the same marks.

Note

- Wrong speaker polarization will result in severe loss of sound quality.
- In case you would like to bi-wire your speakers please insert the cable to the tweeters from the rear using banana plugs and mount the cables to the bass speakers from the side. In doubt please ask your dealer for assistance.

Important

- **Although the SAM G2 has an effective protection system to prevent damage to the circuits, switch off the unit while working on the speaker and/or audio cables**.

- The nominal loudspeaker impedance should be at least 4 Ohms or higher.
- Never use force or tools tightening the terminal screws.

5.3 Preamplifier Output

The SAM G2 is equipped with a pair of RCA preamplifier outputs to connect e.g. an additional amplifier or a subwoofer.

Please use high quality interconnectors to connect the **PRE OUT** [16] of your SAM G2 with an additional amplifier or subwoofer.

5.4 Recording devices

You can connect one recording device to the SAM G2 for recording and playback.

Connect your recording device (like DAT or tape recorder) to the recording output **REC OUT** [15] of the SAM G2. For playback please connect your recording device only to input no. 5 **IN 5** [5] of the SAM G2, if it is also connected to the output **REC OUT** [15] of your SAM G2. If you select input no. 5 **IN 5** [5] the output **REC OUT** [15] is switched off to prevent any feedback loops between your recording device and the SAM G2.

Please use inputs no. 1 [1] to no. 4 [4] and no. 6 [6] to connect sources you like to record from. With these inputs the recording output **REC OUT** [15] is always active.

5.5 Phono

The SAM G2 can be upgraded with a phono pre amplifier board. In this case use the input no. 6 **IN 6** [6] marked as **PHONO** to connect your turntable to the SAM G2. Connect the earth wire of your turntable to the earth connector **GND** [13]. For further information on the optional phono pre amplifier board please refer to its user's manual.

Important

- If the SAM G2 is upgraded with the optional phono module, input no. 6 **IN 6** [11] must only be used to connect a turntable.
- Never use input no. 6 **IN 6** [11] for By-Pass mode, if your SAM G2 is equipped with an optional phono module (see section '*Special function By-Pass Mode*' on page 30).

5.6 Headphones socket

A 6.3 mm headphones socket is located at the rear of your SAM G2. The signal at this socket can be switched on and off to allow the headphones to be plugged in permanently. Switching is easily done on the front panel, please refer to section '*Set Output Mode*' on page 20.

5.7 Audionet Link

For your convenience, the SAM G2 can switch on/off all other Audionet units (e.g. power amplifiers) connected via Audionet Link by a simple touch on the remote control or the **power** key on the front panel.

You only need a simple optical 'Toslink' cable. Connect the Audionet Link output **Link OUT** 12 of your SAM G2 to the Audionet Link input of the unit to be controlled.

6 Usage

All functions of the SAM G2 are microprocessor controlled. This guarantees highest precision, exclusive functions, easy handling and protection against operating errors.

6.1 Powering up

First of all, please make sure your SAM G2 is connected correctly to your signal sources and mains (see section '*Installation and power supply*' on page 8 and '*Inputs and outputs*' on page 11).

The SAM G2 is a stand-by unit. Please operate the mains switch [10] on the back panel. The display shows a welcome message for a brief moment. After that the SAM G2 is in stand-by mode.

Only in cases of extended absence (like vacations) or if massive trouble on the mains power is to be expected (e.g. thunder storms) it is recommended to disconnect the SAM G2 from the mains. While the SAM G2 is in stand-by mode, operate mains switch [10] on the back panel. To disconnect the SAM G2 from mains completely, you have to pull the mains cord off the mains jack [9].

Important

- **Before you switch off the SAM G2 from mains, power down and discharge completely all units connected to the outputs of the SAM G2.**

6.2 Switching on and off

To power up the SAM G2 from stand-by mode, press the **power** key on the front panel. The SAM G2 displays the message **`Waking up...`**. In case the mains plug has the incorrect polarization a warning will appear in the display (see section '*Mains phase detection*' on page 15). After that the unit is in normal operating mode and ready to use.

If you would like to switch off the unit, please press the **power** key on the front panel. The display shows the message **`Going to sleep..`** and unit enters the stand-by mode.

Note

- Of course, you may switch on/off the SAM G2 with the Audionet System Remote Control *Harmony One*. For detailed information please refer to section '*Screen 2*' on page 29

6.3 Mains phase detection

The correct polarization of mains is important for reasons of audio clarity and stability. Please connect the mains cord that the 'hot' pin of the wall outlet is connected to the pin marked '**phase**' 11 of the mains input 9 on the back panel. The SAM G2 recognizes the incorrect polarization of the mains plug automatically. Right after switching on the unit from stand-by mode by pressing the **power** key on the front panel the following message will appear in the display in case the mains polarization is incorrect:

```
►       Attention:      ◄
► Mains phase incorrect ◄
```

If you read the above message, switch off the unit by pressing the **power** key. Please wait until the display no longer reads `Going to sleep...`. Disconnect the SAM G2 from mains by operating the mains switch 10. Now pull the mains plug and re-insert it into the mains socket rotated by 180°.

If you switch on the unit again, the warning should not appear now.

Important

- If the SAM G2 issues the mains polarization warning or no warning at all for both positions of the mains plug, check the connection to earth of your mains socket and mains cord. **You have to ensure a stable connection to earth for the mains phase detection of the SAM G2 to work correctly!**

6.4 Using Audionet Link

The SAM G2 is equipped with an Audionet Link output **Link OUT** 12 allowing you to switch on/off further Audionet units (e.g. power amplifiers, CD player or tuner) connected via Audionet Link (also see section '*Audionet Link*' on page 13).

If the rest of your Audionet system is connected to your SAM G2 via Audionet Link, all linked units will be automatically switched on/off as soon as you switch on/off your SAM G2 using the **power** key on the front panel or the Audionet System Remote Control *Harmony One*.

Note

- Please read section '*Audionet Link*' on page 13. Also, consult the user's manual of your Audionet components connected via Audionet Link for further information.

- If you switch off your Audionet chain using Audionet Link, it is important to wait until **all** devices are shut down before you restart the system.

6.5 Control elements on the front panel

The front panel has four keys to control the SAM G2 (see section '*Overview front panel*' on page 7). With these keys you can control all functions as well as all setup options to adjust the unit to your preferences (see section '*Setup menu*' on page 19).

power	Use key to switch on/off the unit (see section '*Switching on and off*' on page 14).
set	Push key shortly to navigate through the setup menu. Keep key pushed for longer than two seconds to exit the setup menu (see section '*Setup menu*' on page 19).
down	Push key to reduce volume, select previous input channel (see section '*Input selection*' on page 17) or change an option of the setup menu (see section '*Setup menu*' on page 19).
up	Push key to increase volume, select next input channel (see section '*Input selection*' on page 17) or change an option of the setup menu (see section '*Setup menu*' on page 19).

6.6 Volume control

While the SAM G2 is in normal operating mode use keys **up** and **down** on the front panel to adjust the volume. **up** increases, **down** decreases the volume.

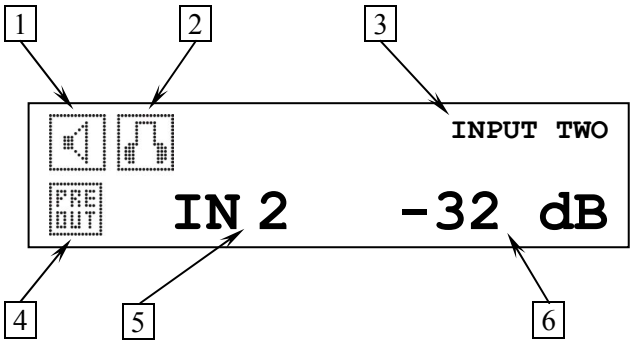
The volume control of the SAM G2 runs in a range from –80 dB to +0 dB relatively to the level of the input signal.

Note

- Use keys **up** and **down** also to change an option from the setup menu (see section '*Setup menu*' on page 19) as well as to select an input channel (see section '*Input selection*' on page 17).

6.7 Display

The display provides in the normal operating mode the following information:



1 Status of the loudspeaker output mode (see section '*Set Output Mode*' on page 20).

2 Status of the headphones output mode (see section '*Set Output Mode*' on page 20).

3 Name of the currently selected input channel, fully user-definable (see section '*Edit Channel Name*' on page 22).

4 Status of the preamplifier output mode (see section '*Set Pre Output Mode*' on page 21).

5 Number of currently selected input channel, corresponds to the number printed above the input jack on the back panel (see section '*Overview back panel*' on page 8).

6 Current volume level in dB relative to the input level (see section '*Volume control*' on page 16).

As soon as you enter the setup menu by pushing the **set** key, the display changes to show information related to the selected menu item. For further display details refer to the description of each menu item in section '*Setup menu*' starting from page 19.

Note

- After 10 minutes without any user interaction the 'display saver' is invoked automatically. The display then shows only the number of the currently selected input channel and the current volume level.

6.8 Input selection

Push the **set** key on the front panel once for less than two seconds, then select the desired input channel with the keys **up** and **down**. The 2nd line of the display provides the number and the (user-definable) name of the currently selected input channel.

Note

- Leave the input selection function by holding down the **set** key longer than 2 seconds.
- Using the Audionet System Remote Control *Harmony One*, select an input channel by simply pressing the corresponding key (see section '*Screen 1*' on page 28), or use the keys **Ch+** and **Ch-** to switch to the next or previous input channel without using the **Select Input** function.

6.9 Muting

Note

- The mute function is only available on the Audionet System Remote Control *Harmony One*.

Press key on the Audionet System Remote Control *Harmony One* to mute or un-mute your SAM G2.

Just as well as the input selection, the SAM G2 uses 'soft' muting, i.e. volume is stepped down gently to -80 dB. The display informs the user of a muted unit with the text **MUTE**. Even if the brightness level is set to **Off**, the text is displayed (see section '*Set Display Brightness*' on page 21).

To un-mute the SAM G2 press key again. Here as well, the volume is stepped up gently to its original level after switching on the outputs.

Note

- While the unit is muted, you may of course select a different input channel as described above. But the SAM G2 will stay muted until you press the key again to un-mute and restore the original volume level.
- If you turn up the volume by using the key **up** or **Vol+**, while the SAM G2 is muted, the muting function will be deactivated and the new volume level set.

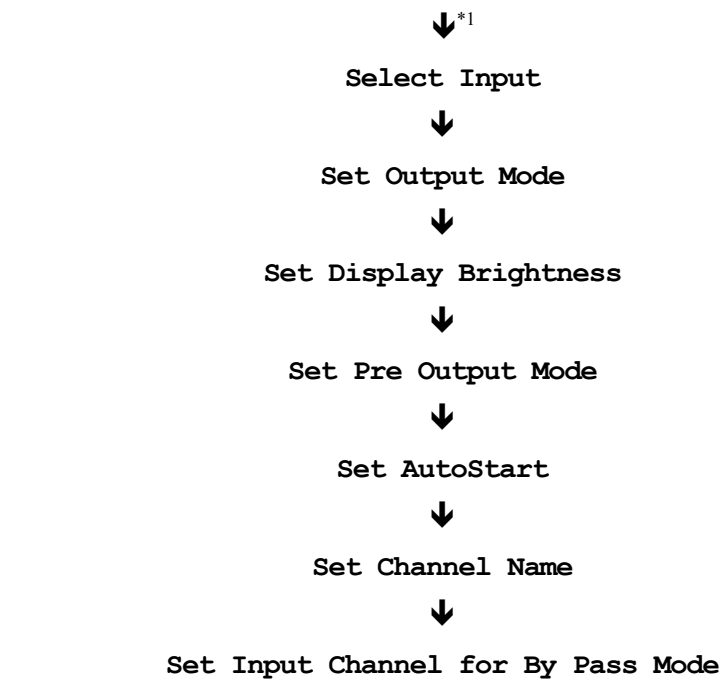
7 Setup menu

To adjust the SAM G2 to your preferences, please use the setup menu.

Push the **set** key on the front panel for less than two seconds to go to the first item of the setup menu. Navigate to the next menu item, by pushing the **set** key again for less than two seconds. Below is a list of all menu items of the setup menu.

After the last menu item you will leave the setup menu automatically. Of course, you may leave the setup menu from each menu item by holding the **set** key down for longer than two seconds. The SAM G2 will return to the normal operating mode.

The order of items in the setup menu is:



Change any setting of a menu item by using the keys **up** and **down** on the front panel.

Tip

- All settings of the setup menu can be dealt with by using the keys of the front panel. However, if you prefer to change settings from the comfort of your listening chair, please use the Audionet System Remote Control *Harmony One*. For more information about the remote control and its usage see section '*Audionet System Remote Control*' on page 25.

*1 ↓ = push **set** key shortly (less than two seconds)

Note

- If you make no adjustments for longer than 12 seconds the SAM G2 will automatically leave the setup menu and return to normal operating mode.
- While you are in the setup menu the display brightness is set to 100% for better readability. After leaving the setup menu the display brightness is automatically reset to its user selected level.
- If you power down the SAM G2 to stand-by mode all settings are stored automatically in the non-volatile memory of the unit. Even after disconnecting from mains the SAM G2 will still remember your settings.

In the following all options of the setup menu are explained in detail.

7.1 Select Input

Push the **set** key on the front panel once for less than two seconds and select than the desired input channel using the keys **up** and **down**. The display shows the number and the (user-definable) name of the currently selected input channel. See also section '*Input selection*' on page 17.

7.2 Set Output Mode

Push the **set** key on the front panel twice for less than two seconds to select the output mode. Now use the keys **up** and **down** to select the desired output configuration.

The two symbols and in the display show if the speaker and/or the headphones output is activated.

`Speakers only`	The headphones output **PHONES** 14 is disabled.
`Headphones only`	Only the headphones output **PHONES** 14 is active. The speaker outputs 7 and 8 are disabled.
`Speakers & Headphones`	The headphones output **PHONES** 14 and the speaker outputs 7 and 8 are active.

Note

- If the option **`Headphones only`** is selected, the pre amplifier output **PRE OUT** 7 will be automatically disabled.

7.3 Set Display Brightness

To adjust the brightness of the display on the front panel of the SAM G2 push the **set** key three times less than two seconds. Now use keys **up** and **down** to select the desired brightness. Key **up** increases, key **down** decreases the brightness.

Important

- **Long-term usage of the display set to maximum brightness (setting 100%) may cause extended signs of wear resulting in a decay of contrast or brightness of individual dots in the display. Do not use the display with a brightness set higher than the factory default of 50% over a longer period of time!**

Note

- Is the brightness set to **`Off`** the display is only on during setup or volume adjustments. It switches off automatically several seconds after the last user entry.
- The SAM G2 activates the 'display saver' automatically after 10 minutes without any user entry.
- During active 'display saver', the display shows only the number of the selected input channel and current volume level in the form of **`In 4 -47dB`**. The display brightness is always reduced to 25%, and the location of the information text will change randomly every 12 seconds to prevent any 'burn-in' effect of the display.
- The 'display saver' is de-activated and the display returns to its normal mode as soon as any user entry is detected.
- The user cannot switch off the automatic 'display saver' function!

Tip

- Get to the option **`Set Display Brightness`** at anytime using the key **Dim Display** on screen page 2 of the Audionet System Remote Control *Harmony One* (see section '*Screen 2*' on page29). Use keys **Vol-** and **Vol+** to select desired brightness.

7.4 Set Pre Output Mode

Push the **set** key on the front panel four times for less than two seconds to set the mode of the pre amplifier output **PRE OUT** 7. Now use the keys **up** and **down** to activate or disable the pre amplifier output.

Note

- The display symbol PRE OUT shows if the preamplifier output is activated.
- If the option **`Headphones only`** is selected, the pre amplifier output **PRE OUT** [7] will be automatically disabled.

7.5 Set Autostart

Push the **set** key five times for less than two seconds to get to the Autostart option. Push the **up** key on the front panel to activate the Autostart function. If you like to deactivate the Autostart function push the **down** key.

`disabled` The Autostart function is disabled. After switching on the mains switch [10] on the back panel, the SAM G2 enters the stand-by mode. You have to use the **power** key on the front panel or keys [**Power On**] or [**Power Toggle**] on the Audionet System Remote Control *Harmony One* to switch on the unit into normal operating mode*).

`active` The Autostart function is active. As soon as you connect the SAM G2 to mains (i.e. use the mains switch [10] on the back panel) the unit starts up automatically to normal operating mode. Use this setting for timer controlled operations.

7.6 Edit Channel Name

You can assign a fully user-definable name up to 14 characters in length to each of the six input channels. Push the **set** key on the front panel six times. The display will then show the number of the currently selected input channel and the assigned channel name. The cursor in the display marks the character you now may alter.

Use the keys **up** and **down** on the front panel to select the desired character. Hold **set** key down for longer than two seconds to move the cursor one step to the right. After the last position the cursor wraps around and starts at the first position again.

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*) or switched on/off by Activities on the Audionet System Remote Control; see separate user's manual *Harmony One*

Tip

- If you would like to edit the channel name for more than just the currently selected input channel, use keys **Ch+** and **Ch-** of the Audionet System Remote Control to switch to the desired input channel. The SAM G2 does not leave the setup menu, and you are able to edit the channel name for other input channels very easily. Press key of the Audionet System Remote Control to advance the cursor one position to the right.

7.7 Set Channel for By-Pass Mode

Push the **set** key seven times for less than two seconds to enter the option for selecting the input channel in By-Pass Mode.

Use keys **up** and **down** on the front panel to select the input channel you would like to use in By-Pass Mode.

Note

- For detailed information about the By-Pass Mode please refer to section '*Special function By-Pass Mode*' on page 30.
- If no input channel is selected for the By-Pass Mode (factory default), the display will show: **`SET CHANNEL FOR BY-PASS MODE: By-Pass Mode disabled`**

Important

- Before you can use the By-Pass Mode you have to select the input channel that is used for the By-Pass Mode. Otherwise the SAM G2 issues the warning: **`No input for By-Pass selected`**.
- For safety reasons the factory default settings have **no** input channel selected for By-Pass Mode (display: **`SET CHANNEL FOR BY-PASS MODE: By-Pass Mode disabled`**).

7.8 Overview factory defaults

Option	Setting
Select Input	INPUT TWO -> IN 2
Set Output Mode	Speakers only
Set Display Brightness	50%
Set Pre Output Mode	disabled
Set AutoStart	disabled
Channel name	1: BALANCED IN 2: INPUT TWO 3: INPUT THREE 4: INPUT FOUR 5: TAPE INPUT 6: PHONO INPUT
Set Input Channel for By Pass Mode	By-Pass Mode disabled

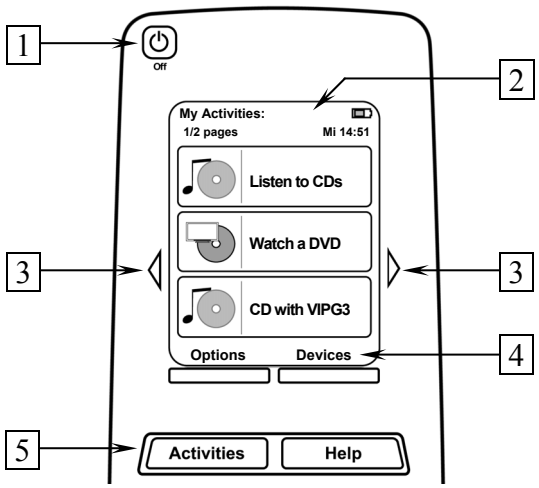
8 Audionet System Remote Control

Every function of the SAM G2 is accessible via the Audionet System Remote *Harmony One*. Additionally, up to 14 other devices can be controlled by the *Harmony One*.

Press key **Devices** to enter **Device Mode**. The display now lists all devices included in the current configuration of the *Harmony One*. Select **SAM G2** from the list to set the *Harmony One* to controlling the SAM G2. The **Device Mode** gives you access to all the possible commands to control your SAM G2. The following explains all these commands in detail.

Important

- During everyday use, you should never need to use the **Device Mode** of your Harmony One, but control the SAM G2 (and other devices of your audio setup) by customizing your Activities. For detailed information on how to customize and use Activities on your *Harmony One* please consult the separate user's manual that came with your *Harmony One*.



1 **Power** key for use with Activities, turns all devices off that are included into the current Activity. See separate user's manual of *Harmony One*.

2 Depending on the operational mode, the touch screen of the *Harmony One* shows a list of Activities or Devices, help or infrared commands and any available listings.

3 If a menu or listing stretches over more than one screen page, use the corresponding arrow buttons to go to the next or previous page of the menu or listing. (see also separate user's manual of the *Harmony One*).

4 **Devices** key, lists all the devices on the display, and allows you to select and directly control any device included in the configuration of

the remote control (see separate user's manual of *Harmony One*). Select **SAM G2** to enter **Device Mode** for controlling the SAM G2.

5 **Activities** key: Press this key to view a list of Activities you have added. Press the button next to the Activity you want to select, and the *Harmony One* will control your entertainment system (see separate user's manual of *Harmony One*).

Important

- **The Power key is only available for Activities. In Device Mode the Power key has no function.**
- **Even without using an Activity, the user is able to control all functions of the SAM G2 using the *Harmony One* in Device Mode.**
- **The keys described below to control the SAM G2 refer to the factory default programming of the Audionet System Remote Control Harmony One. Understandably, any changes done to this setup by the user cannot be discussed here.**

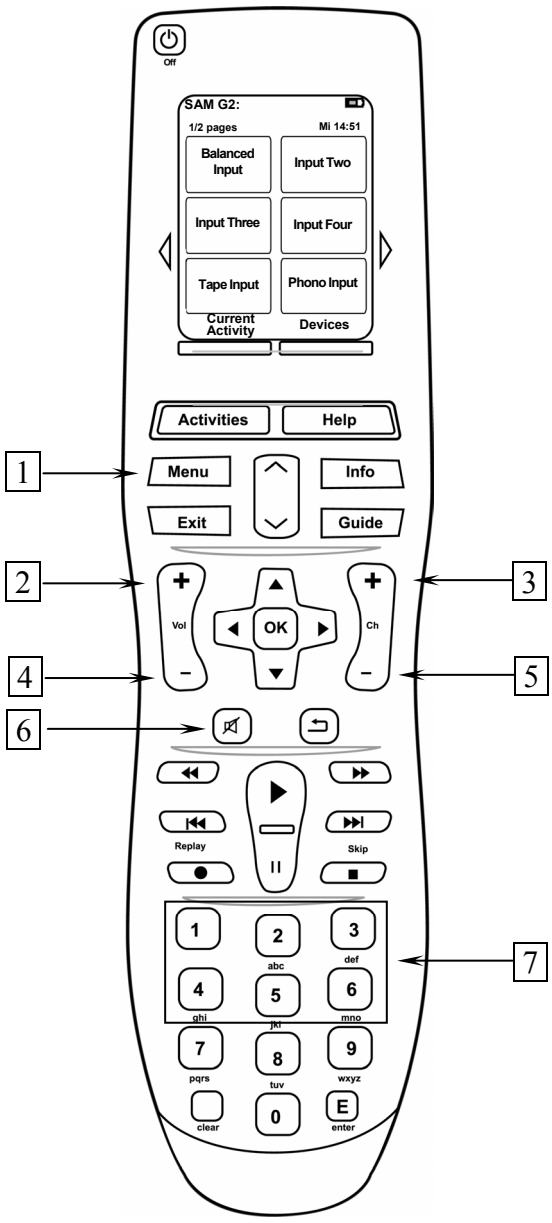
Tip

- In order to switch the SAM G2 on/off, **without** using an Activity, please use the keys **Power Toggle**, **Power On** and / or **Power Off** on screen 2 (see section '*Screen 2*' on page 29). Of course, it is possible to control the SAM G2 without any Activity, **but to tap the full potential of the *Harmony One* you need to configure Activities customized to your needs** (please refer to separate manual of the remote control *Harmony One*).

Note

- Please read the separate user's manual to your Audionet System Remote Control *Harmony One*. Activities, Devices and Device Mode as well as customizing the remote control are discussed there in detail.

8.1 Key assignment SAM G2



1 Use key **Menu** to navigate through the setup menus. This key has the same function as key **set** on the front panel (see section '*Setup menu*' on page 19) or key **Set** on screen page 2 (see section *'Screen 2*' in page 29).

2 **Vol+**, increases the volume of the SAM G2, also for selecting setup options or input channels. This key has the same function as key **up** on the front panel.

3 **Ch+**, switches to the next input channel (see section '*Input selection*' on page 17).

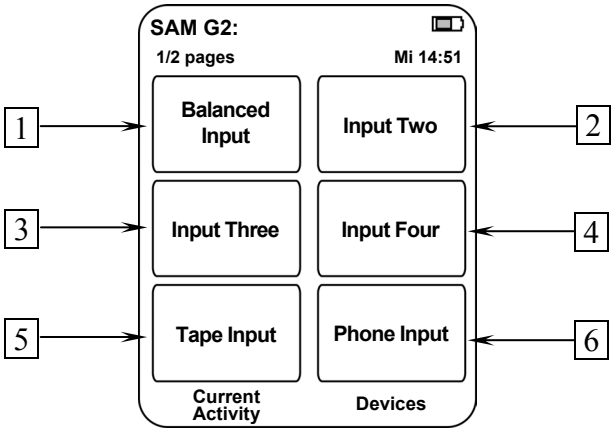
4 **Vol-**, decreases the volume of the SAM G2, also for selecting setup options or input channels. This key has the same function as key **down** on the front panel.

5 **Ch-**, switches to the previous input channel (see section '*Input selection*' on page 17).

6 , mutes the SAM G2 (see section '*Muting*' on page 18).

7 **Digit keys** for direct input selection (see section '*Input selection*' on page 17).

8.2 Screen 1



1 Directly selects input channel no. 1.

2 Directly selects input channel no. 2.

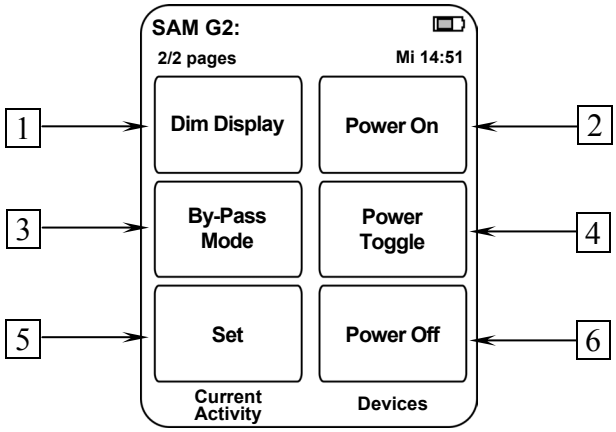
3 Directly selects input channel no. 3.

4 Directly selects input channel no. 4.

5 Directly selects input channel no. 5.

6 Directly selects input channel no. 6.

8.3 Screen 2



1 **Dim Display** jumps directly to the setup menu item **`Set Display Brightness`** (see section '*Set Display Brightness*' on page 21).

2 If the SAM G2 is in stand-by mode, press key **Power On** to switch on the unit.

3 **By-Pass Mode** switches on/off the By-Pass Mode of the SAM G2. **Please read section '*Special function By-Pass Mode*' on page 30 first, before you use the special function By-Pass Mode.**

4 Use **Power Toggle** to switch on/off the SAM G2. This key has the same function as the **power** key on the front panel. If the SAM G2 is in stand-by mode, **Power Toggle** switches on the unit. If the SAM G2 is already switched on, **Power Toggle** switches off the unit to stand-by mode.

5 Use **Set** to navigate through the setup menus. This key has the same function as the **set** key on the front panel (see section '*Setup menu*' on page 19) or key **Menu** of the *Harmony One* (see section '*Key assignment SAM G2*' on page 27).

6 If the SAM G2 is switched on, use key **Power Off** to switch the unit off to stand-by mode.

9 Special function By-Pass Mode

The By-Pass Mode is primarily intended to integrate the overwhelming sound quality of the SAM G2 into an existing home cinema setup or to expand an existing excellent stereophonic system based on the SAM G2 to a complete home cinema setup without missing out on the qualities of the SAM G2. To realise this kind of setup, please proceed as follows:

1. Connect your home cinema pre amplifier according to its user's manual.
2. Connect the output for the front channels Left and Right not to the power amplifier but to one of the free inputs of the SAM G2.
3. Now connect your front speakers with the speaker terminals 7 and 8 of your SAM G2.
4. Use menu item **`Set Channel for By-Pass Mode`** of the setup menu of the SAM G2 to select the input channel for By-Pass Mode you connected the outputs Left and Right of the home cinema pre amplifier to.
5. Connect now all high quality 2-channel analog sources to the remaining inputs of the SAM G2.
6. Connect your DVD player to your home cinema pre amplifier as usual.

Use the SAM G2 to listen to high quality analog sources. If you would like to use your home cinema system activate the By-Pass Mode of the SAM G2 and use your home cinema pre amplifier as usual.

Important

- **The By-Pass Mode is only available on the Audionet Remote Control *Harmony One*.**
- **Please read the complete section about the special function By-Pass Mode first before you use this function in order to prevent maloperations and possible damage to your audio system and/or hearing.**
- **By factory default no input channel is selected for the By-Pass Mode. Use menu option `Set Channel for By-Pass Mode` to select desired input channel for the By-Pass Mode. If no input channel is selected and you try to invoke the By-Pass Mode the SAM G2 issues the warning: `No input for By-Pass selected` (see section '*Set Channel for By-Pass Mode*' on page 23).**

Is the By-Pass Mode active the volume control of the SAM G2 is bypassed. The SAM G2 passes through the input signal to the speaker outputs with its **full** level.

Please use setup option 'Set Channel for By-Pass Mode' to select which of the six input channels of the SAM G2 is fed through to the outputs if By-Pass Mode is active.

Important

- **First, select the input channel used for By-Pass Mode (see section '*Set Channel for By-Pass Mode*' on page 23), before you activate the By-Pass Mode for the first time.**

Activate the special function By-Pass Mode of your SAM G2 by pressing the key **By-Pass Mode** of the Audionet System Remote Control. The signal at the input channel selected for By-Pass Mode operations is passed through the SAM G2 at a level of 0 dB (i.e. no change in volume level) to the outputs.

Important

- **Please check the correct connection and setup before you use the By-Pass Mode for the first time. The input signal will be passed through to the outputs at full level!**

As soon as the By-Pass Mode is activated, the SAM G2 will ignore all control commands coming from the keys on the front panel or remote control (exceptions see below)!

Important

There are only two possibilities to disable the By-Pass Mode:

1. Press key **By-Pass Mode** of the Audionet System Remote Control. The SAM G2 switches back to the input channel selected before resetting the volume to a safe level of -50 dB.
2. Push the **power** key on the front panel or the keys **Power Toggle** or **Power Off** on the Audionet System Remote Control. The SAM G2 switches off to stand-by mode.

Note

- If you leave the By-Pass Mode by pushing the **power** key on the front panel, this mode will **not** be saved, i.e. if you switch on the SAM G2 again, the unit will switch to the last saved input channel selection and not to the By-Pass Mode. If you would like to use the By-Pass Mode again, press key **By-Pass Mode** of the Audionet System Remote Control *Harmony One*.

10 Protection system

Your Audionet SAM G2 and your loudspeakers are protected by a complex protection circuitry. In case of a malfunction the display informs the user about the nature of the detected error in plain text:

Error message	Possible cause
Overload	short circuit or defective speaker
Overheating	ventilation slots covered
High Frequency	defective pre amplifier-stage
DC Voltage	exceeding DC level at the output: defective pre amplifier-stage or source unit
Power Failure	(temporary) breakdown of mains

Even after powering down the SAM G2, the error message will still be in the display. Press the **power** key on the front panel to indicating the stand-by mode.

Important

- Remove cause of error prior to switching on the SAM G2 again!

11 Technical information

11.1 Design

With circuits consequently designed using SMD miniature technology and shortening all signal paths to a minimum the high frequency characteristics were optimized. Ground pathways run in a star-shaped pattern converging in one central location. The circuit design is optimized capacitively and inductively. A powerful microprocessor controls and monitors the system.

11.2 Power Supply

The mains supply is extremely potent and very fast. This is guaranteed by a capped and fused 700 VA toroidal transformer, selected main filter capacitors with a total of 96.000 µF smoothing capacity, a specially developed input filter and highly pure silver cabling as well as a capacitively optimized layout with the shortest of supply routes.

11.3 Circuitry

The circuitry of the SAM G2 is complex, technically unique and radically realized. The input signals are received from gold plated, Teflon isolated cinch jacks and then fed through gold-doped pure silver solid core signal cabling and gold-contacted double anchor precision relays, which switch the input signals. Each channel of the symmetrical input signals is un-balanced separately.

11.4 Operation

The SAM G2 is controlled via a high-performance flash microcontroller. Software upgrades are very easy. The controller makes for simple operation, comfortable functions and reassuring stability. The control programme enables operator-friendly access to comprehensive and practice-oriented functions. For example, the two pre-stage outputs and headphones output can be switched electronically. A by-pass mode is available for smart integration of the new SAM G2 into a home cinema system. The inputs are freely nameable and the controller even verifies that the mains connection is phase correct. Moreover, the controller monitors all operating states and deactivates the device as soon as a critical state has been identified. A large graphics-capable display with max. 4 x 26 characters informs the operator of all operating states and settings. The SAM G2 surely is equipped with AudionetLink. This enables the isolated activation of other Audionet devices via fibre-optics.

You may expand your SAM G2 with the optional Audionet System Remote Control *Harmony One* or Phono Module for MM and MC pickups.

12 Security advice

Important

- Avoid packaging material, especially plastic bags, coming into children's hands!
- Store and operate the unit in a dry room at a reasonable room temperature only!
- Avoid moisture, any liquids, dirt or small objects getting into the unit!
- Set up the unit in a sufficiently ventilated environment!
- Do not cover the unit!
- Do not open the unit. Unauthorised opening will void warranty!
- Do not short-circuit the outputs!
- During connecting or removing the SAM G2 to/from sources and/or power/pre amplifiers all units have to be switched off to prevent damage of the SAM G2 or any of the other connected units.
- Use dry cloth for cleaning!

We would like to wish you many exciting listening experiences with your new Audionet product.

If you still have any questions, do not hesitate to ask your Audionet dealer or contact us directly

13 Technical data

Type	Analog integrated stereo amplifier
Output power	2 x 115 Watt into 8 Ohms 2 x 210 Watt into 4 Ohms
Frequency response	0 - 500,000 Hz (-3 dB)
Damping factor	typ. 1000 at 100 Hz
Harmonic Distortion	k2 typ. -101 dB, k3 typ. -106 dB, @1 kHz, 25 W/4 Ohms
THD+N	< -100 dB @1 kHz, 25 W/4 Ohms
SNR	> 103 dB
Filtering Capacity	96,000 µF
Inputs	5 pairs RCA line, gold plated, Teflon insulted 1 pair XLR balanced, gold plated (Neutrik)
Input impedance	Line input 10 kOhms XLR input 3 kOhms, 170 pF
Outputs	2 pair WBT Nextgen 4mm-jacks, gold-plated 1 pair RCA, gold-plated, Teflon insulated (Pre Out) 1 pair RCA , gold-plated, Teflon insulated (Rec Out) 1 Audionet Link, optical (TosLink) 1 6,3 mm socket for headphones (switchable)
Mains	220 V…240 V, 50…60 Hz
Power consumption	< 1 W Stand-by, max. 30 W
Dimensions	Width 430 mm Height 120 mm Depth 360 mm
Weight	14.5 kg
Finish	**Front:** brushed aluminium, 10 mm, black anodized, light grey printing or brushed aluminium, silver anodized, black printing **Display:** red or blue **Cover:** aluminium, 2 mm, black anodized **Plates:** aluminium, 8 mm, black anodized **Chassis:** 2 mm sheet steel, black varnished

Features	- automatic detection of mains polarization - separate power supply for digital and analog sections - full DC coupling, no capacitors in the signal path - By-Pass function (e.g. for integration into home cinema systems) - Audionet Link output for remote control of other Audionet components - Switchable headphones output
Options	- Audionet System Remote Control (not included) - MC/MM phono pre amplifier module

Errors and omissions excepted. Specifications and design are subject to changes without prior notice.

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